

*Susan Hanley*

Access DB# 100621

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Marlene Lamm Examiner #: 74965 Date: 8/6/01  
Art Unit: 1616 Phone Number 306-4541 Serial Number: 10/088,059  
Mail Box and Bldg/Room Location: CHI 2019 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

*MFL*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Use of 2-nitro-p-phenylene diamine deriv. as dyest colorants  
Inventors (please provide full names): Naumov et al

Earliest Priority Filing Date: 9/8/2000 (PCT); 9/17/99 (Germany)

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

*Susan,*  
*please search d. species as claimed. If not found, please extend your search as requested by Applicant (lines 2-3 on p. 3).*

*Thank you,*  
*Marlene Lamm*

*P.S. I need it back by 9/6/01*

*Thank*  
*ML*

## STAFF USE ONLY

Searcher: <u>Hanley</u>	Type of Search	Vendors and cost where applicable
Searcher Phone #:	NA Sequence (#)	STN:
Searcher Location:	AA Sequence (#)	Dialog
Date Searcher Picked Up:	Structure (#) <u>1</u>	Questel/Orbit
Date Completed: <u>8/11</u>	Bibliographic	Dr. Link
Searcher Prep & Review Time:	Litigation	Lexis/Nexis
Clerical Prep Time:	Fulltext	Sequence Systems
Online Time:	Patent Family	WWW/Internet
	Other	Other (specify)

**H 3939 PCT/US  
SERIAL NO. 10/088,059**

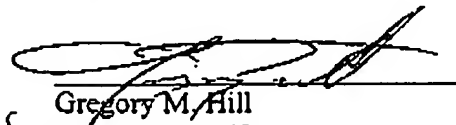
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Applicants respectfully request that the Examiner consider the examination of a subspecies of formula (I) in which only one of R1 to R4 is a C5 ring with the remaining ones being H or an hydroxyalkyl group. X would be limited to H. However, in the event that the species election requirement is maintained and for the sole purpose of submitting a response to the species election, Applicants provisionally adopt, with traverse, the species, 1-(N-cyclopentylamino)-2-nitro-4-aminobenzene. All pending claims are readable on the elected species. However, no subject matter is being cancelled in order to afford the Examiner the opportunity to reconsider and withdrawn the recited species election.

Applicants again respectfully request that the Examiner reconsider this species election especially in view of the fact that during the examination of the corresponding international application, no objection was raised for failing to comply with PCT Rule 13.1. By attempting to split this application into one or more additional divisional applications there is an undue hardship that would be placed on Applicants' Assignee due to the additional fees that must be borne for the filing, prosecuting and maintaining of such derivative applications.

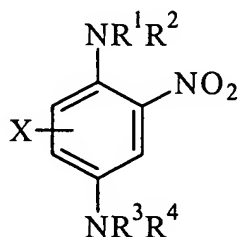
Applicants respectfully request the favorable reconsideration of all pending claims. The Commissioner is authorized to charge any deficiency in the required fee or to credit any overpayment made in connection with this response to Deposit Account 01-1250.

Respectfully Submitted,

  
Gregory M. Hill  
Reg. No. 31,369  
Attorney for Applicants  
(610) 278-4964

Docket No. H3939 PCT/US  
PCT/EP00/08773

--19. (NEW) A method for coloring or tinting keratin fibers comprising applying to keratin fibers a coloring or tinting composition comprising at least one 2-nitro-p-phenylenediamine derivative corresponding to formula (I) as a substantive dye:



(I)

wherein  $R^1$  to  $R^4$ , independently of one another, represent hydrogen, a  $C_{1-4}$  hydroxyalkyl group or a saturated, monounsaturated or polyunsaturated  $C_5$  ring, wherein the  $C_5$  ring is optionally substituted by a  $C_{1-4}$  alkyl group, a halogen atom, a hydroxy group or an amino group or combinations thereof, and wherein at least one of the substituents  $R^1$  to  $R^4$  is the  $C_5$  ring;

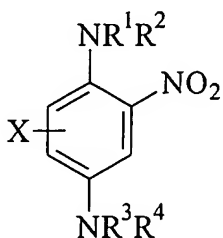
wherein X is hydrogen or a halogen atom; and

wherein the 2-nitro-p-phenylenediamine derivative makes a reddish contribution to the overall color of the keratin fibers.

20. (NEW) The method of claim 19 wherein X is hydrogen.
21. (NEW) The method of claim 19 wherein  $R^2$  to  $R^4$  are hydrogen.
22. (NEW) The method of claim 21, wherein the compound corresponding to formula (I) comprises 1-(N-cyclopentylamino)-2-nitro-4-aminobenzene.

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23. (NEW) A composition for coloring or tinting keratin fibers comprising at least one 2-nitro-p-phenylenediamine derivative corresponding to formula (I) as a substantive dye:



(I)

wherein  $R^1$  to  $R^4$ , independently of one another, represent hydrogen, a  $C_{1-4}$  hydroxyalkyl group or a saturated, monounsaturated or polyunsaturated  $C_5$  ring, wherein the  $C_5$  ring may be optionally substituted by a  $C_{1-4}$  alkyl group, a halogen atom, a hydroxy group or an amino group or combinations thereof, and wherein at least one of the substituents  $R^1$  to  $R^4$  is the  $C_5$  ring; and

wherein X is hydrogen or a halogen atom.

24. (NEW) The composition of claim 23 wherein X is hydrogen.

25. (NEW) The composition of claim 23 wherein  $R^2$  to  $R^4$  are hydrogen.

26. (NEW) The composition of claim 25 wherein the compound corresponding to formula (I) comprises 1-(N-cyclopentylamino)-2-nitro-4-aminobenzene.

27. (NEW) The composition of claim 23 wherein the composition comprises at least one substantive dye different from the substantive dye of formula (I).

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28. (NEW) The composition of claim 23 wherein the composition is free from oxidation dye precursors.

29. (NEW) The composition of claim 28 wherein the composition is formulated to remain on the hair.

30. (NEW) The composition of claim 29 wherein the composition is a hair-setting preparation.

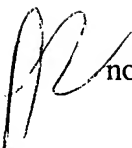
31. (NEW) The composition of claim 23 further comprising at least one primary intermediate.

32. (NEW) The composition of claim 31 wherein the primary intermediate comprises p-phenylenediamine, p-toluylenediamine, p-aminophenol, 1-(2'-hydroxyethyl)-2,5-diaminobenzene, N,N-bis-(2-hydroxyethyl)-p-phenylenediamine, 4-amino-3-methylphenol, 4-amino-2-((diethylamino)-methyl)-phenol, 2-aminomethyl-4-aminophenol, 2,4,5,6-tetraaminopyrimidine, 2-hydroxy-4,5,6-triaminopyrimidine, 4-hydroxy-2,5,6-triaminopyrimidine or 4,5-diamino-1-(2'-hydroxyethyl)-pyrazole, or combinations thereof.

33. (NEW) The composition of claim 32 further comprising at least one secondary intermediate, wherein the secondary intermediate comprises 1-naphthol, 1,5- dihydroxynaphthalene, 2,7- dihydroxynaphthalene, 1,7-dihydroxynaphthalene, 3-aminophenol, 5-amino-2-methylphenol, resorcinol, 4-chlororesorcinol, 2-chloro-6-methyl-3-aminophenol, 2-methyl resorcinol, 5-methyl resorcinol, 2,5-dimethyl resorcinol or 2,6-dihydroxy-3,4-diaminopyridine, or combinations thereof.

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34. (NEW) The composition of claim 31 further comprising at least one secondary intermediate, wherein the secondary intermediate comprises 1-naphthol, 1,5- dihydroxynaphthalene, 2,7- dihydroxynaphthalene, 1,7-dihydroxynaphthalene, 3-aminophenol, 5-amino-2-methylphenol, resorcinol, 4-chlororesorcinol, 2-chloro-6-methyl-3-aminophenol, 2-methyl resorcinol, 5-methyl resorcinol, 2,5-dimethyl resorcinol or 2,6-dihydroxy-3,4-diaminopyridine, or combinations thereof.

 35. (NEW) The composition of claim 23 further comprising at least one anionic polymer, nonionic polymer or cationic polymer, or combinations thereof.

36. (NEW) The composition of claim 23 further comprising at least one surfactant.

37. (NEW) The composition of claim 23 further comprising at least one conditioning component.

38. (NEW) The composition of claim 23 wherein the 2-nitro-p-phenylenediamine derivative makes a reddish contribution to the overall color of the keratin fibers.

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